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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,892	10/15/2001	William J. Berry	00411-03	1747
7590 07/12/2004				
Walter L. Beavers 326 South Eugene Street Greensboro, NC 27401				
			EXAMINER CINTINS, IVARS C	
			ART UNIT 1724	PAPER NUMBER
DATE MAILED: 07/12/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

cf

Office Action Summary	Application No.	Applicant(s)	
	09/976,892	BERRY, WILLIAM J.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-8, 10-16 and 18 are again rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. As pointed out in the Office action dated January 29, 2004, it appears essential that the recited control valve include both a duct having a series of axially spaced, parallel grooves therealong with o-rings therebetween (see page 3, last line through page 4, line 2 of the specification); and a spool having a plurality of longitudinal channels (see page 4, lines 2-3 of the specification) residing in this duct (see page 3, last line of the specification). The channels appear to be required in order to allow water to flow beneath the o-rings (see page 7, lines 2-3 of the specification); and the grooves encircling the duct appear to be required in order to allow water to freely flow between the o-rings (see page 7, lines 9-10). Without the presence of both of these critical and essential elements, it is not clear that the control valve is capable of functioning in the intended manner. Claims 1, 3-8, 10, 14-16 and 18 fail to recite the apparently critical and essential longitudinal channels in the spool; and claims 1, 3-8, 10-16 and 18 fail to recite the apparently critical and essential series of axially spaced parallel grooves encircling the duct between the o-rings. Accordingly, these are not enabled by the disclosure. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-8, 10-16 and 18 are again rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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Applicant regards as the invention. As pointed out in the Office action dated January 29, 2004, claims 1, 3-8, 10, 14-16 and 18 fail to recite the apparently critical and essential longitudinal channels in the spool; and claims 1, 3-8, 10-16 and 18 fail to recite the apparently critical and essential series of axially spaced parallel grooves encircling the duct between the o-rings.

Accordingly, these claims fail to distinctly claim the subject matter which Applicant regards as the invention, as explained above. Also, the term "said duct" (claim 1, line 11) lacks antecedent basis in the claims, and is therefore indefinite.

Applicant's arguments filed May 19, 2004 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant argues that the claims should be in condition for allowance because the independent claims have been amended to include "axially spaced housing grooves which reside between the o-rings along the spool duct." It is pointed out, however, that claims 1, 3-8, 10, 14-16 and 18 still fail to recite the apparently critical and essential limitation of longitudinal channels in the spool (see page 4, lines 2-3 of the specification). Similarly, claims 1, 3-8, 10-16 and 18 still fail to recite the apparently critical and essential series of axially spaced parallel grooves encircling the duct between the o-rings (see page 3, last line through page 4, line 2 of the specification; and page 7, lines 9-10 of the specification). It is noted that claims 1 and 11 now recite a plurality of grooves which are axially spaced along the duct between the o-rings; but these claims fail to recite that these grooves are parallel, and that they encircle the duct. It is further noted that claim 15 now recites a plurality of grooves surrounding the spool; but this claim fails to recite that these grooves are axially spaced along a duct between o-rings, that they are parallel, and that they encircle the duct. Accordingly,

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claims 1, 3-8, 10-16 and 18 still are not enabled by the disclosure and/or fail to distinctly claim the subject matter which Applicant regards as the invention.

Claims 1, 3-8, 10-16 and 18 would be allowed if amended to overcome the above rejections under 35 U.S.C. § 112.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
July 8, 2004